VISIT…

NEST Complete Learning System™

The Animated Hero Classics®

Resource & Activity Book

Marie Curie

By: M. G. Johnson, Tony Salerno, & Katherine Vawter

NEST Family Entertainment™

Parent and Teacher Guide

Studies have proven learning is enhanced through the use of several senses. A recent study shows that we retain 10 percent of what we see, 20 percent of what we hear, and 50 percent of what we see and hear. But when we see, hear and do, we retain 90 percent of the information.
(Lisa Marie Nelson, Ph.D., Author "The Healthy Family Handbook").

The purpose of this Resource & Activity Book is to help children learn and retain the story theme and principles in a fun and educational way. Your children will love coloring pages, solving puzzles, matching games, completing word searches, and much more! Each Resource & Activity Book also features challenging questions and activities for children from preschool through middle school. And in the rare case you don't know an answer, there's an answer key in the back!

LEVEL OF DIFFICULTY

The activities in this book are designed in three levels of difficulty designated by symbols. The activities with one symbol are geared towards younger children while the activities with two and three symbols become increasingly challenging for older children.

Level One
Easy

Level Two
Intermediate

Level Three
Advanced

CURRICULUM RELATED

These educational activities are related to various educational discipline such as social studies (geography, history, culture), language arts (spelling, creative writing, grammar, literature), math (simple equations), and science. There are also activities for character development, video awareness, problem solving, music, and art. The subject codes below are for your convenience.

Art | Character Development | Culture | Geography | History | Language Arts | Math | Music | Problem Solving | Science | Spelling | Video Awareness | Writing

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REFERENCES

For those wishing to further study the life of Marie Curie, some of the references used in research for the Resource & Activity Book are listed below, along with other titles that may be of interest.

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Marie reads a Russian textbook at the age of five.

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WHAT IS WRONG?

Many things that we use today were not invented when Marie Curie first started her work.

Look at the picture of her laboratory. Find seven (7) things that do not belong here.

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COLOR THE LETTERS

Marie Curie was a great scientist. She worked very hard on her discoveries. Did she have a nice, new lab to work in? Find out where Marie had to work.

Color all the B's red. Color all the C's green. The remaining letters give the answer. Copy the letters in order from left to right on the blanks below.

B C I C N A B C

N O B L C D C B

C S C H B E D C

Where did Marie Curie work?

__ __ __ __ __ __ __ __ __ __

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Marie Curie's TIME LINE

. . . 1600's . . . 1700's . . . 1800's . . . 1900's . .

Find out what was happening in the world during Marie Curie's lifetime. Match the letters under the blanks with a letter in the Code Box. Write the matching letter in the blank.

CODE BOX

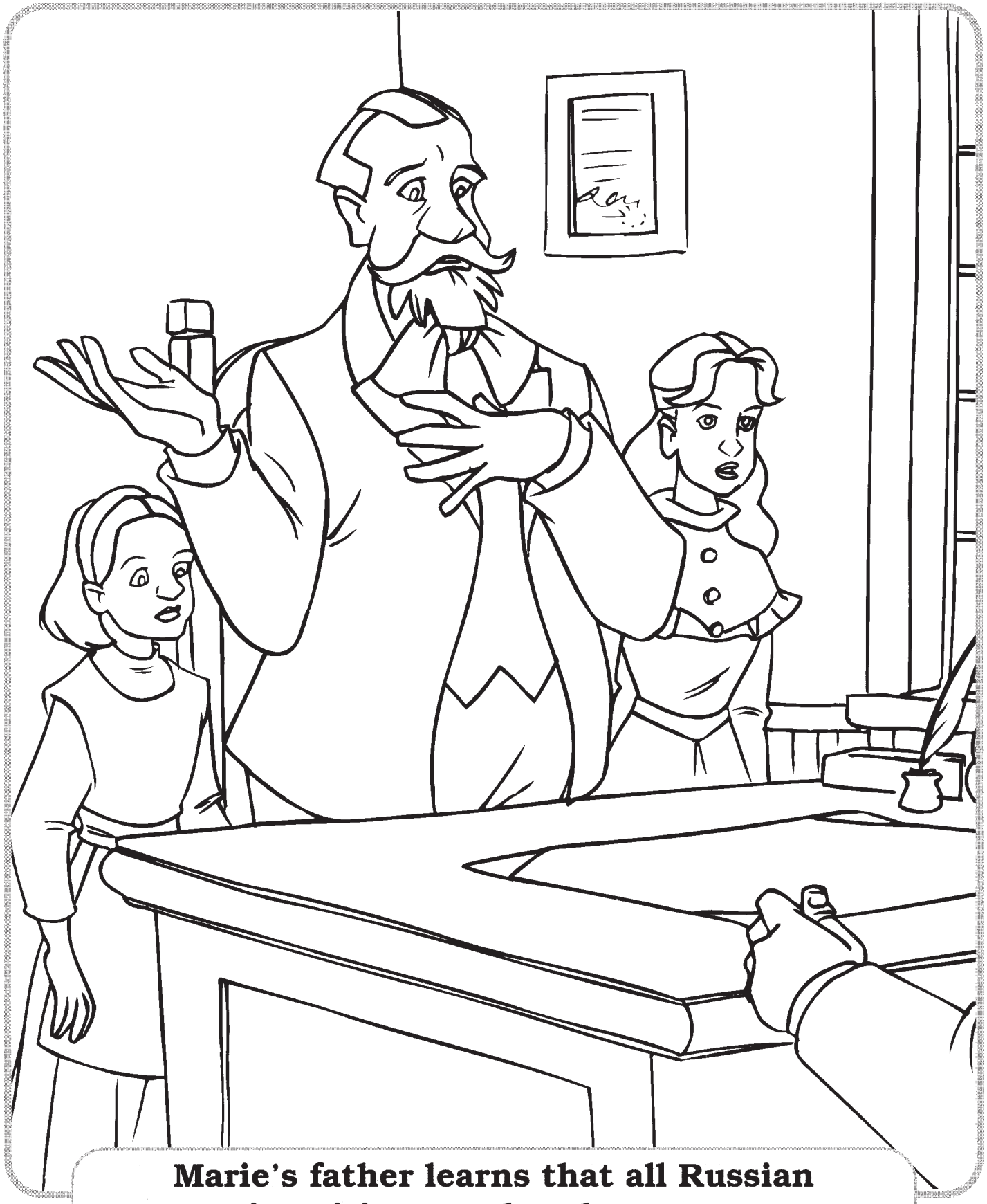
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Z	Y	X	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A

1859 _ _ _ _ _ _ _ _ _ _ _ _ is born.
K R V I I V X F I R V

1861 The American _ _ _ _ _ _ _ _ _ _ begins.
X R E R O D Z I

1865 Lewis Carroll publishes

_ _ _ _ _ _ _ _ _ _ _ _



Marie's father learns that all Russian universities are closed to women.

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TAG-A-LONG SENTENCES

The sentences below tell something about Marie Curie, but the letters are not in the right order. Each word in the sentences is either combined with part of another word or is divided in the wrong place. Separate the letters to make the correct words. Write the sentence on the blank.

1. Whe nMari ewa sver yyoun ghe rfamil ykne wsh ewa sab rillian tch ild.

   _____.

2. Ma riew asa lway sat thet opof herc lass.

   _____.

3. Mar iefini shed scho olat thea geof fift een.

   _____.

4. Theu niversi tiesin Po landdi dno tacce ptgir ls.

   _____.

5. Mari ewan ted togo tot heun iversit yin Paris.

   _____.

6. Mar ie'sfa mil ycoul dno taffor dtos endh ert oscho ol.

   _____.

7. Whil eMari eworke dtos avem one ysh ewent toa "se cre tun iver sity."

   _____.

8. Af term any yea rs,Ma rief inall ywen ttoP aris.

   _____.

9. Int woy ears Mari erec eive dhe rmas ter's degre ein phy sics.

   _____.

10. Then extye arMar ietoo kano therde gree inmat hema tics.

    _____.

** Try writing your own sentences this way for your friends to figure out.*

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The HIDDEN WORD

Discover Marie Curie's great discovery. The word is hidden in the puzzle below.

To find the word read the statements below and follow the directions.

1. If Marya Sklodowska became Marie Curie, color in all the spaces marked with a **2**.
2. If the Curies found a cure for the common cold, color in all the spaces marked with an **8**.
3. If Marie Curie was born in Poland, color in all the spaces marked with a **7**.
4. If Marie Curie went to school in Paris, color in all the spaces marked with a **3**.
5. If Marie Curie's father was a farmer, color in all the spaces marked with a **1**.
6. If Marie Curie won a Nobel Prize, color in all the spaces marked with a **4**.
7. If Marie Curie won two Nobel Prizes, color in all the spaces marked with a **9**.

10	6	5	1	10	8	5	1	6	6	5	10	8	6	5	8	1	10	8	10	6	5	8	6
8	7	4	9	8	3	9	7	10	4	2	6/7	1	2	1	9	10	7	6	9	1/4	6/2	3	10
1	2	5	3	10	4	1	4	5	3	3/1	9	6	4	10	2	8	9	10	7	3	4	9	5
6	4	7	2	1	9	2	3	8	7	10	7	10	9	8	4	6	3	1	2	9/1	7/6	2	10
5	9	3/1	8/7	6	7	8	9	1	2	1/3	4	5	7	5	7	5	2	5	4	8	6	7	8
1	3	8	2	8	4	6	2	10	9	2	9/1	8	3	6	3	7	4	6	2	6	8	3	6
8	10	5	1	10	10	5	1	6	5	10	6	5	1	10	8	10	1	6	10	5	10	5	8

What was Marie Curie's great discovery?

_____

This is a very rare metallic element. It is used to treat diseases such as cancer. Marie Curie named it after the Latin word *radius*, meaning "ray."

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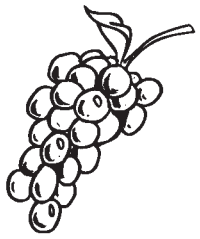
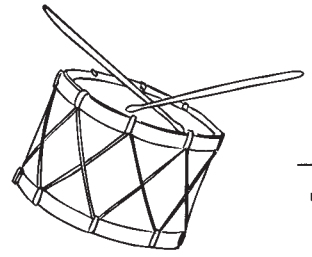
PICTURE PUZZLE

A friend, who was an editor of a New York magazine, asked Marie what one thing in the world she wanted most. To find what Marie answered, work the puzzle.

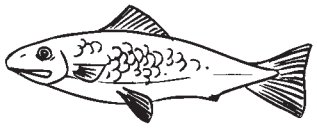
Write the name of the picture on the blanks. Then match the numbers to the letters. Write the correct letter on the blanks below the pictures.



__ __ __ __ __ __
1 2 3 4 5 6



__ __ __ __
7 8 9 10



__ __ __ __
11 12 13 14

__ __ __ __
15 16 17 18

__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
3 1 2 3 10 16 11 8 3 7 12 9 10

Did she get it? __ __ __
15 5 13

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Marie's passion for learning takes her to a "secret university" where everything is taught in Polish.

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DMWORDXSEARCHGH

Find and circle the following words in the letter grid. They may be forward, backward, up, down, or diagonal.

U R A N I U M C H E M I S T
P A R I S M A P R B Q N K O
A D B L U N R C D L E R P G
D I L I C P I E R R E S H L
A O D E L A E R L S B O L P
E A R Z R S C I E N T I S T
R C U I O K U A L K R X T E
O T I R N W R O E L T R U A
S I M P O C I L M O R A D C
S V B L H A E N E R G Y Y H
E I G E P O L A N D H W N E
F T A B O O K S T L M R S R
O Y R O T A R O B A L M W A
R B P N O T E S N R A O L K
P E X P E R I M E N T N M O

BOOKS
CANCER
CHEMIST
ELEMENT
ENERGY
EXPERIMENT
GLOW
HONOR
LABORATORY
MARIE CURIE
NOBEL PRIZE
NOTES
PARIS
PIERRE
POLAND
PROFESSOR
RADIOACTIVITY
RADIUM
READ
RESEARCH
SCIENTIST
STUDY
TEACHER
URANIUM
X-RAY

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Fun with Math and Words

Marie Curie was offered huge amounts of money for her discovery, but she refused the offers. She believed that a true scientist should share, not sell, her discoveries. Discover what she always told people who wanted to buy her secrets.

Work the math problems below. Your answers are now code numbers for the letters below them. Match the numbers below the blanks with your answers and write the correct letter in the blank.

12	3	8	15	19	11	3	14
-5	+9	+8	-7	-2	+4	+2	-8
R	M	N	K	S	B	E	F

13	11	18	15	13	5	8	12
-11	-8	-9	+4	+7	+6	+5	-8
O	H	A	T	I	W	L	D

What did Marie Curie always say?

__		__	__	__	__		__	__		__	__	__	__		__	__			
20		11	20	13	13		4	2		11	3	9	19		20	17			

__	__	__	__		__	__	__		__	__	__	__	__	__	__	.			
15	5	17	19		6	2	7		12	9	16	8	20	16	4				

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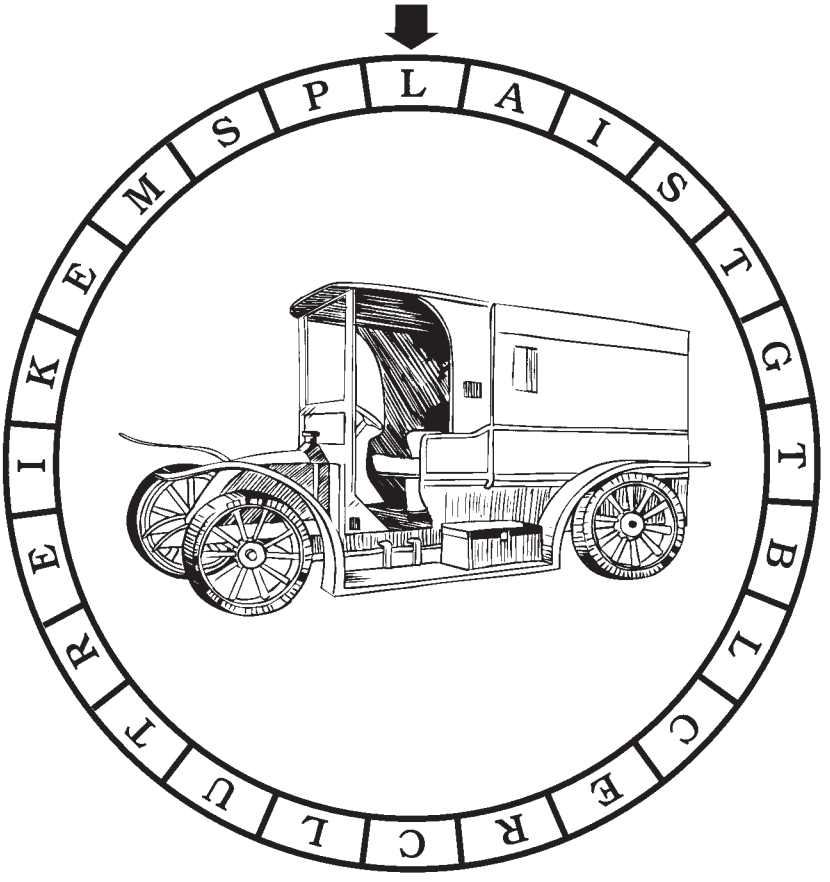
WORD WHEEL

Marie Curie used her science to help the soldiers in World War I (1914-1918). For the first time, X-rays were used in the medical field. X-rays helped to locate bullets and broken bones in the soldiers. Marie trained doctors and nurses to use the X-ray equipment. Small vans carrying the X-ray units would travel along the battlefront. The soldiers had a name for these vans. Work the puzzle to find what they were called.

Circle the first letter at the arrow. Continue to the right and circle every other letter. Copy the circled letters on the blanks below. These letters spell the answer.



What were the mobile X-ray vans called?

___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

It is estimated that because of Marie's X-ray stations, more than a million men were helped during World War I!

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Marie studies hard at the Sorbonne University in Paris, France.

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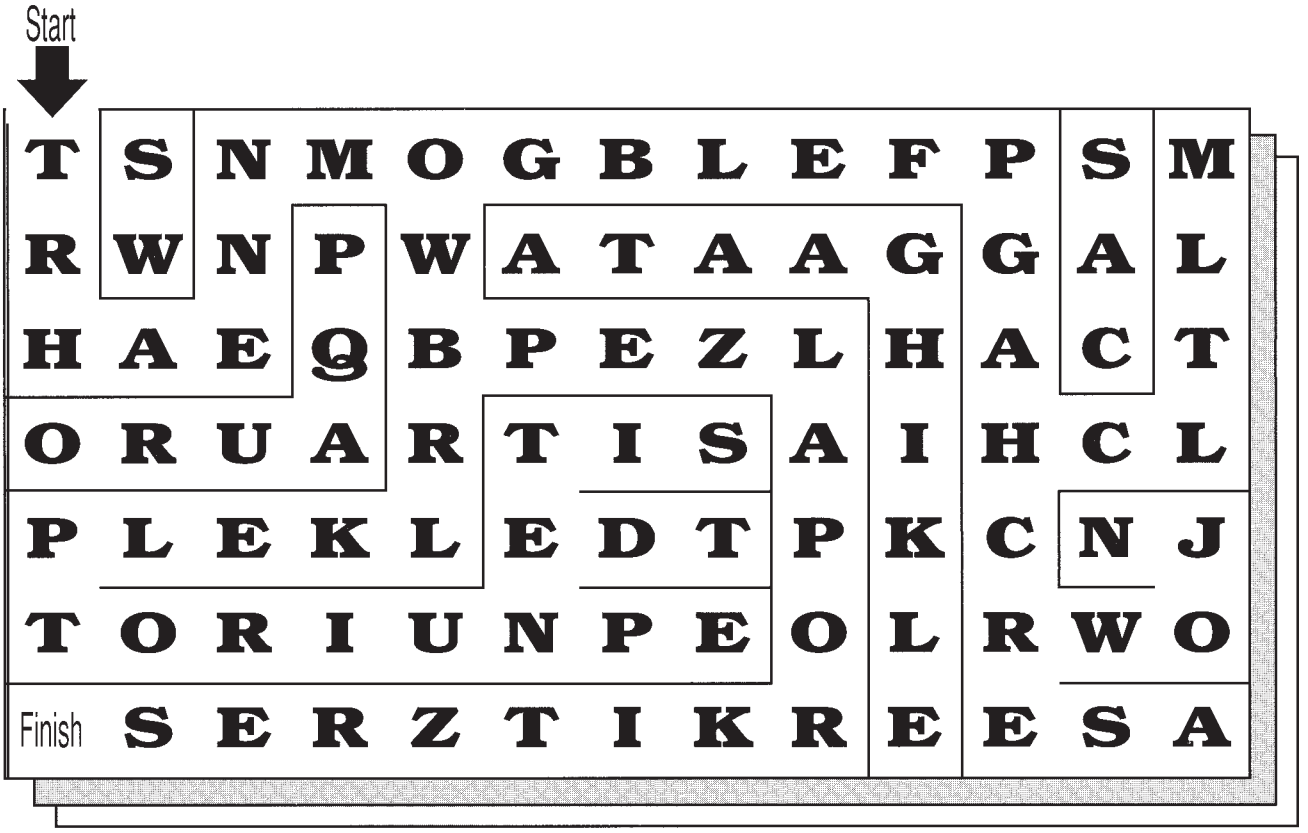
The A-MAZE-ING Marie

Marie Curie was the first woman to receive the highest award given in the world. She was also the first to receive it twice. She won it first, along with her husband, in 1903, for physics. In 1911 she won it alone for chemistry.

Find what this high award is called by going through the maze below. There is only one way through. After you have found the way, go back and circle every other letter, starting with the first letter **T**. The circled letters spell the name of the high award that Marie Curie was given. Copy the circled letters on the blanks below to complete the sentence.


Start
T S N M O G B L E F P S M
R W N P W A T A A G G A L
H A E Q B P E Z L H A C T
O R U A R T I S A I H C L
P L E K L E D T P K C N J
T O R I U N P E O L R W O
Finish S E R Z T I K R E E S A

Marie Curie was the first woman ever to receive

___ _____ _____.

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A+

Find The Spelling Mistakes

Find and circle the twelve (12) spelling mistakes in the paragraph below. Write the words correctly on the spaces provided.

The Nobel Prize

The Nobel Prize awards were estableshed in 1895 by a Swedish chemist, Alfred Nobel. He had become a very welthy man after inventing dynomite. In his will he directed that the incume from his estate be used to fund five annuel prizes. These prizes are awarded eech year to people who have made a valuable contribution to the "good of humanity" in chimistry, physics, medicine, litrature, and peace. A sixth award for economics was added in 1969. The winners recieve their awards on December 10, the anniversary of the deth of Alfred Nobel. The Nobel Foundation started giving out awards in 1901. Today, they remain the most honered prizes in the wurld.

1. _____ **7.** _____

2. _____ **8.** _____

3. _____ **9.** _____

4. _____ **10.** _____

5. _____ **11.** _____

6. _____ **12.** _____

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Pierre Curie asks Marie to marry him.

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HIDDEN PICTURES

There are ten (10) hidden laboratory bottles in this picture. Can you find all ten? Circle them and color the picture.

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Be a Science Detective

Marie Curie was a true scientist who was dedicated to find answers. When she first heard about the strange, invisible rays coming from uranium, she wanted to find what it was. She spent countless hours each day for four years before coming up with the answer.

Pretend you're a science detective. You are going to solve a mystery in science! First of all, let's get organized.

"The Scientific Method of Investigation"

Step One: Come up with a problem that you want to solve. It has to be a problem that you can find the answer through experiments. For example, "Will a plant stay alive if I water it with mouthwash?"

Step Two: Make a statement about what you think will happen. This is called a hypothesis. You could say, "A plant will die if it is watered with mouthwash."

Step Three: Now it's time to test your hypothesis. Decide on the type of experiment you want to use. You need to have a "controlled" group and an "experiment" group. For example, a plant watered with mouthwash would be labeled "experiment" and a plant watered with water would be labeled "control." Make a list of the materials you will need.

Step Four: Make observations at regular intervals. Note your results.

Step Five: Come to a final conclusion. Summarize the experiment in a statement that relates to your hypothesis. If your results showed that your hypothesis was wrong, do not change your hypothesis!

LOTS OF LUCK, SCIENCE DETECTIVE!

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MARIE'S SIZZLING SCIENCE SECTION

The Scientific Method of Investigation

for

_____

(give your experiment a name)

Step One: **Ask a question or pose a problem.**

_____

_____

Step Two: **Form a hypothesis.**

_____

_____

Step Three: **Decide on an experiment.**

Materials needed:

_____ _____ _____

_____ _____ _____

Procedure of experiment:

1. _____
2. _____
3. _____
4. _____
5. _____

Step Four: **Note results.**

First Observation: _____

_____

Second Observation: _____

_____

Final Observation: _____

_____

Step Five: **Come to a conclusion:**

_____

_____

_____

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Marie explains a theory for her doctorate degree.

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Curie's Crossword

ACROSS

1. A great scientist.

4. A helper or associate.

6. Discovered by Marie Curie.

8. The smallest unit of a substance.

11. A thin line of radiation or light.

12. A high award for achievement.

13. Marie's husband.

15. Marie's birthplace.

16. To validate or try out.

18. A ray that can pass through solids.

19. A professor.

DOWN

2. Scientific investigation.

3. Radioactive element.

5. A pupil.

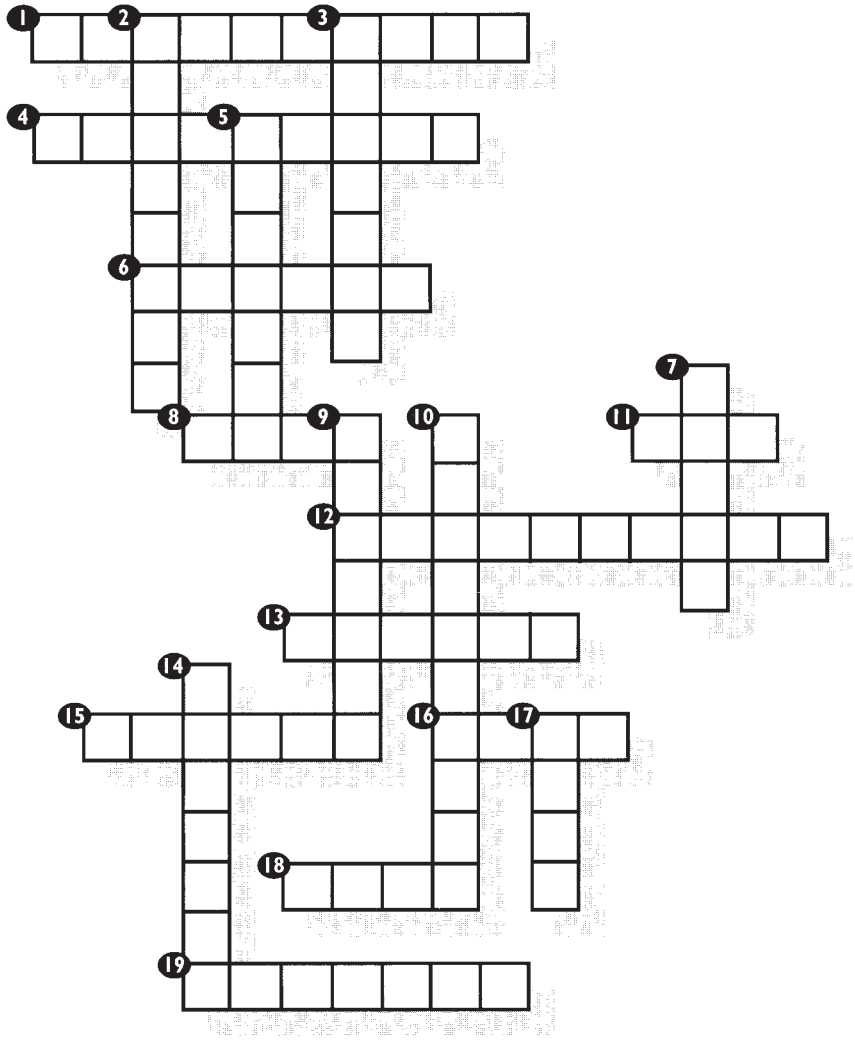
7. Where Marie went to the university.

9. The dream of a true scientist is to serve _____.

10. Scientist's workshop.

14. A single, pure substance.

17. Marie's first laboratory was in a _____.



WORD BOX

assistant	radium
atom	ray
element	research
laboratory	shed
mankind	student
Marie Curie	teacher
Nobel Prize	test
Paris	uranium
Pierre	X-ray
Poland	

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LETTER BLACKOUT

Marie Curie gave herself and all of her time and attention to a discovery that laid the foundation for the Atomic Age. She believed that mankind should benefit from her discoveries. She included her family in her work. One of her daughters even went on to win the Nobel Prize.

There is a word that shows a character quality that Marie Curie had. Work the puzzle below to find the word.

Step One: Black out every letter that appears three times or more.

O	K	B	R	W	J	V	A	S	R
C	X	S	D	G	F	R	M	C	Y
M	A	Y	K	C	T	G	A	K	J
B	F	I	X	W	G	S	M	E	C
F	N	Y	A	J	B	X	O	G	W

Step Two: Copy the letters that are not blacked out in these boxes.

Step Three: Unscramble the letters to form a word that shows one of Marie Curie's character qualities. Write the letters on the blanks.

___ ___ ___ ___ ___ ___ ___ ___ ***means***

giving or applying one's time, attention, or self to someone or to a cause and being loyal to that.

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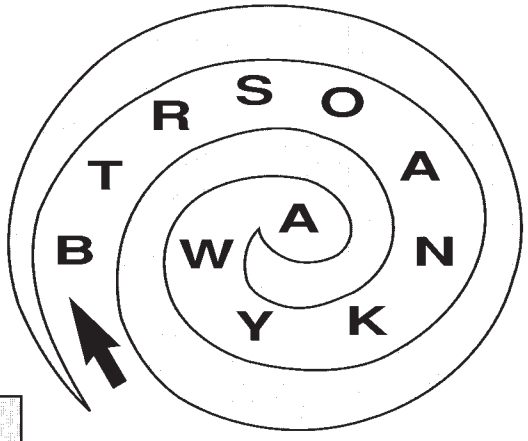
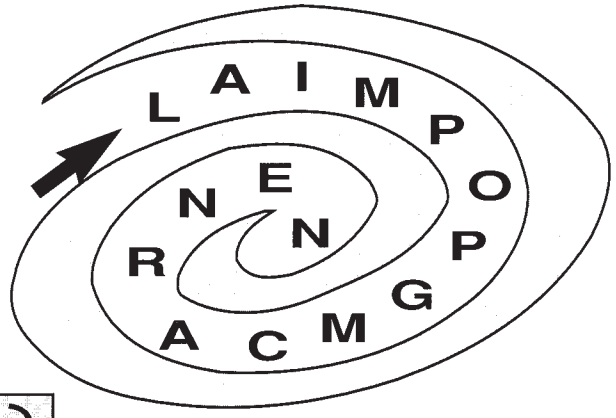
Word Whirls

Begin at the arrow and circle the first letter. Then circle every other letter. The circled letters make a word that will answer the question below the puzzle. Write your answer in the blank.



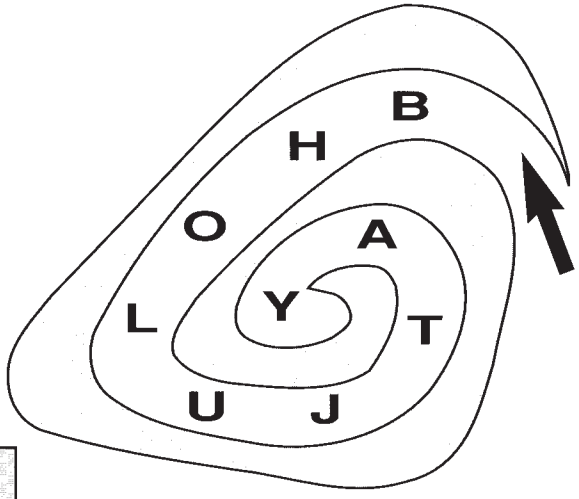
1

Who was Marie's sister that helped her go to the university? _____



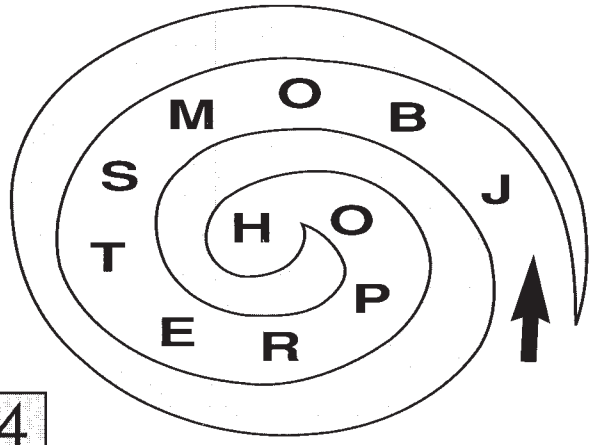
2

Who was the professor who first taught Marie at the university and then later was the one who awarded her the Doctorate of Science? _____



3

Who was another professor from the university who always supported Marie in her studies? _____



4

Who was Marie's brother who became a doctor? _____

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Marie and Pierre look to see if there is pure radium in the bowl.

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FEMALE FIRSTS

In Marie Curie's time, women were not allowed to do certain things. Marie always believed in equality with men, but she did not join in the movement for women's rights. Marie was proud of her work as a scientist. As a result, she was the first woman to do many things. Decode the symbols below to find three of the "first" things that she did.

In the Code Box to the right, each letter has its own symbol. Use the symbols to find the answer. Copy the correct letters on the blanks. The first letter has been done for you.

CODE BOX

L	R	B
H	O	M
T	D	F
G	A	P
S	E	I
C	Z	N

1. Marie Curie was the first woman in Europe to be awarded the degree

D _____ _____ _____.

(1903)

2. Marie Curie was the first woman to win the

_____ _____. (1903)

3. Marie Curie was the first woman to become a

_____ at the _____.

(University of Paris, 1906)

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GRID CODE

Even though Marie Curie was awarded the highest honors in the world, she was unchanged by all the fame. She often thought the fame interferred with her work. The Curies refused the wealth that they could have had from their discoveries. Find what Albert Einstein, one of the major physicists of the 20th century, wrote about Marie after she died.

Use the Grid Code Box to decode the message below. Match the code under the blanks with a letter in the Grid Code Box. Write the correct letter on the blank.

GRID CODE BOX

	1	2	3	4	5
A	e	c	l	r	y
B	f	b	t	n	g
C	u	h	a	k	w
D	o	p	d	m	s

"Marie Curie is, of all celebrated human beings,

__ __ __
B3 C2 A1

__ __ __ __ __ __ __ __ __ __ __ __
D1 B4 A3 A5 D1 B4 A1 C5 C2 D1 D4

__ __ __ __ __ __ __ __ __ __
B1 C3 D4 A1 C2 C3 D5 B4 D1 B3

__ __ __ __ __ __ __ __ __ ."
A2 D1 A4 A4 C1 D2 B3 A1 D3

– Albert Einstein

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ELEMENTARY ELEMENTS

Ag	Au	C	Cu	H	O
Silver	Gold	Carbon	Copper	Hydrogen	Oxygen

Marie Curie worked with uranium which is an element. An element is the simplest form of matter. It cannot be broken down into two or more simpler substances. Elements can combine with other elements to form another material. Some of these combinations make up air, water, stone, wood, the food we eat, and even our bodies. It took many years of experimenting for scientists to discover all of the elements.

Find some of the elements in the puzzles below. Begin at the arrow and draw a continuous line through the letter in each box to spell a word. Write each element's name below the box. Use the Word Box and the example to help you.

WORD BOX

carbon	oxygen	hydrogen
silver	gold	copper

1.

O	X	S	H
R	A	Y	G
X	F	L	E
D	T	N	S

1. *O X Y G E N*

2.

W	V	C	O
B	A	S	J
C	R	B	M
K	U	O	N

2. _ _ _ _ _ _

3.

E	Y	D	S
H	T	R	O
F	B	M	G
A	N	E	V

3. _ _ _ _ _ _ _ _

4.

W	B	O	C
S	P	P	T
F	E	S	X
H	R	L	I

4. _ _ _ _ _ _

5.

S	C	E	G
P	R	O	A
H	L	B	W
D	J	X	Y

5. _ _ _ _

6.

A	T	V	E
I	L	U	R
S	G	M	O
A	B	H	F

6. _ _ _ _ _ _

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"The whole world wants to know the secret of radium."

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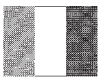
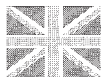
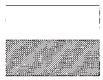
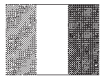
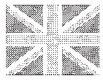
Flag Fun!

Each flag in the paragraph below stands for a different country in the story of Marie Curie. Use the clues at the bottom of the page to write the correct country in the blanks beside each flag to complete the sentences.

Marie Curie was born in **_____. Her country was ruled by** **_____ at the time.** **_____ did not let women go to their universities, so Marie went to Paris,**  **_____ to study. After many years of study and hard work, she received from** **_____ the Nobel Prize for Physics in 1903. Marie and her husband, Pierre, went to**  **_____ where they were awarded the Davy Medal by the Royal Society of London. In 1911 Marie Curie received from** **_____ the Nobel Prize for Chemistry. She was the first woman ever to win a Nobel Prize and the first person ever to win two awards. Marie traveled to the** **_____ in 1921 where whe was awarded many medals of honor. Even though she lived in** **_____ most of her life, she never forgot her homeland of**  **_____. After World War I** **_____ was free from** **_____'s control.**

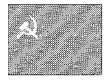
UNITED STATES


FRANCE


ENGLAND

POLAND

SWEDEN


RUSSIA

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Secret Code

A cousin sent Marie some money for a wedding present. Marie bought something for Pierre and herself with the money. What did she buy with the money?

Work the puzzle to find what it was, and why she bought it. Match the numbers under the blanks with a letter in the Code Box. Write the correct letter on the blank.

CODE BOX

A	B	C	E	G	H	I	L	M	N	O	R	S	T	U	W	Y
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
13 6 4 2 11 15 5 6 14 14 16 11

_ _ _ _ _ _ _ _ _. _ _ _ _
2 7 3 17 3 8 4 13 14 6 4 17

_ _ _ _ _ _ _ _ _ _ _ _
16 4 10 14 11 10 14 6 4 9 11 10

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _.
14 6 4 7 12 6 11 10 4 17 9 11 11 10

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PUZZLING POETRY

Each rhyme describes something from the story of Marie Curie. Read each rhyme aloud. Then write your answer in the blank.

Marie Curie discovered me,
I'm full of radioactivity.
What am I?

1 _____

I am a very precious ore,
Inside of me is what Marie was looking for.
What am I?

2 _____

Someone introduced me to Marie.
The next year she married me.
Who am I?

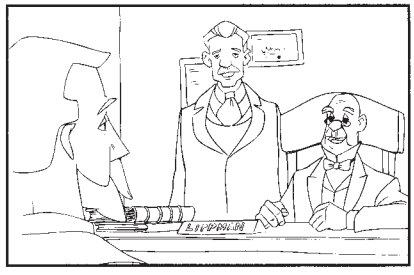
3 _____

I am what Marie studied to be
After leaving the university.
What am I?

4 _____

I helped Marie go to school in Paris,
I'm her sister, but there is no way to compare us.
Who am I?

5 _____



I am a subject in which Marie earned her degree,
It gets much harder than adding one plus three!
What am I?

6 _____

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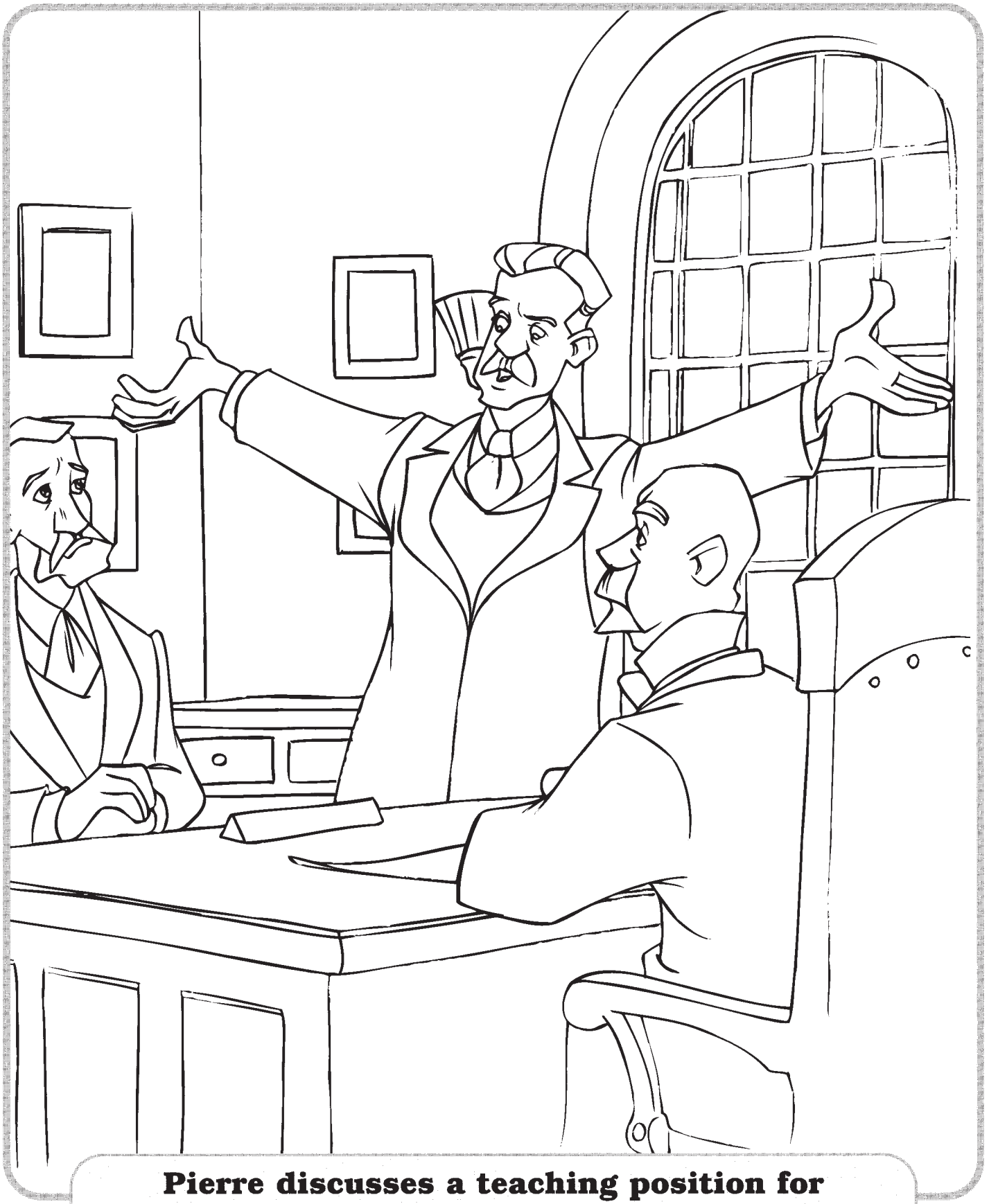

Pierre discusses a teaching position for Marie with Professors Bouty and Lippmann.

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Finish the Story

The story below is about Marie Curie's discovery, radium. Find the verbs, nouns, or adjectives in the Word Boxes that best fit the blanks. Write the words in the blanks. Some words may be used more than once. Be careful! Some are tricky.

NOUN BOX		ADJECTIVE BOX		VERB BOX	
cancer	instruments	cheaper	new	bathe	producing
dangers	Marie Curie	face	old	closing	replaced
dark	radium	industrial	radioactive	discovered	sing
element	sicknesses		radium	glowed	smoked
everyone	tonics			invented	
gram	uranium				
	entertainment				

"Radium"

Radium is a highly radioactive, metallic _____ (noun) . It was _____ (verb) by _____ (noun) in 1902. It comes mainly from _____ (noun) . When radium was first introduced, _____ (noun) was excited about this _____ (adjective) "miracle" element. Because it _____ (verb) in the _____ (noun) , it was used on clock faces and _____ (noun) . One _____ (noun) of radium could cost up to $200,000 at that time. _____ (adjective) plants started _____ (verb) more and soon it was advertised to be able to heal many _____ (noun) . People went to spas to _____ (verb) in _____ (adjective) water. Radium was used in hair _____ (noun) and _____ (adjective) creams. This was before people were aware of the _____ (noun) of being exposed to _____ (adjective) materials. Before the mid-1950's it was widely used to treat _____ (noun) . Now, _____ (noun) is rarely used. Safer and _____ (adjective) sources of radiation have _____ (verb) it for most medical and _____ (adjective) uses.

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MARIE CURIE WORD PUZZLE

Find some interesting facts about Marie Curie by working the puzzle below.

In the word puzzle you will find each letter in Marie Curie's name is used to make another word. To find the word, answer the questions to the left of the word. If you need help, the words are in the Word Box. The first one has been done for you.

WORD BOX

Bronya French	Marya Nobel	Paris Pierre	Poland radium	Russia teach

1. Marie was given the name ____ when she was born. — M *a r y a*
2. Marie was born in _____. — _ _ _ A _ _
3. The sister that helped her get to Paris was _____. — _ R _ _ _ _
4. Marie went to _____ to study. — _ _ _ I _
5. All of her lessons were taught in _____. — _ _ E _ _ _
6. Marie wanted to go back to Poland to ___. — _ _ _ C _
7. Poland was ruled by _____ at this time. — _ U _ _ _ _
8. Marie discovered _____. — R _ _ _ _ _
9. In 1895 Marie married _____ Curie. — _ I _ _ _ _
10. Marie was the first woman to win the _____ Prize. — _ _ _ E _

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MATCHING GAME

Draw a line to match the words on the left with the words that go with it on the right. The words all come from the story of Marie Curie.

1. Birthplace	A. Scientist
2. Cancer	B. A high award
3. Experiment	C. Husband
4. Laboratory	D. Investigate
5. Marie Curie	E. Radium
6. Nobel Prize	F. Poland
7. Paris	G. Test
8. Pierre	H. Teacher
9. Pitchblende	I. Explanation
10. Professor	J. Radioactive
11. Research	K. Contains uranium
12. Study	L. Workshop
13. Theory	M. Sorbonne University
14. Uranium	N. Books

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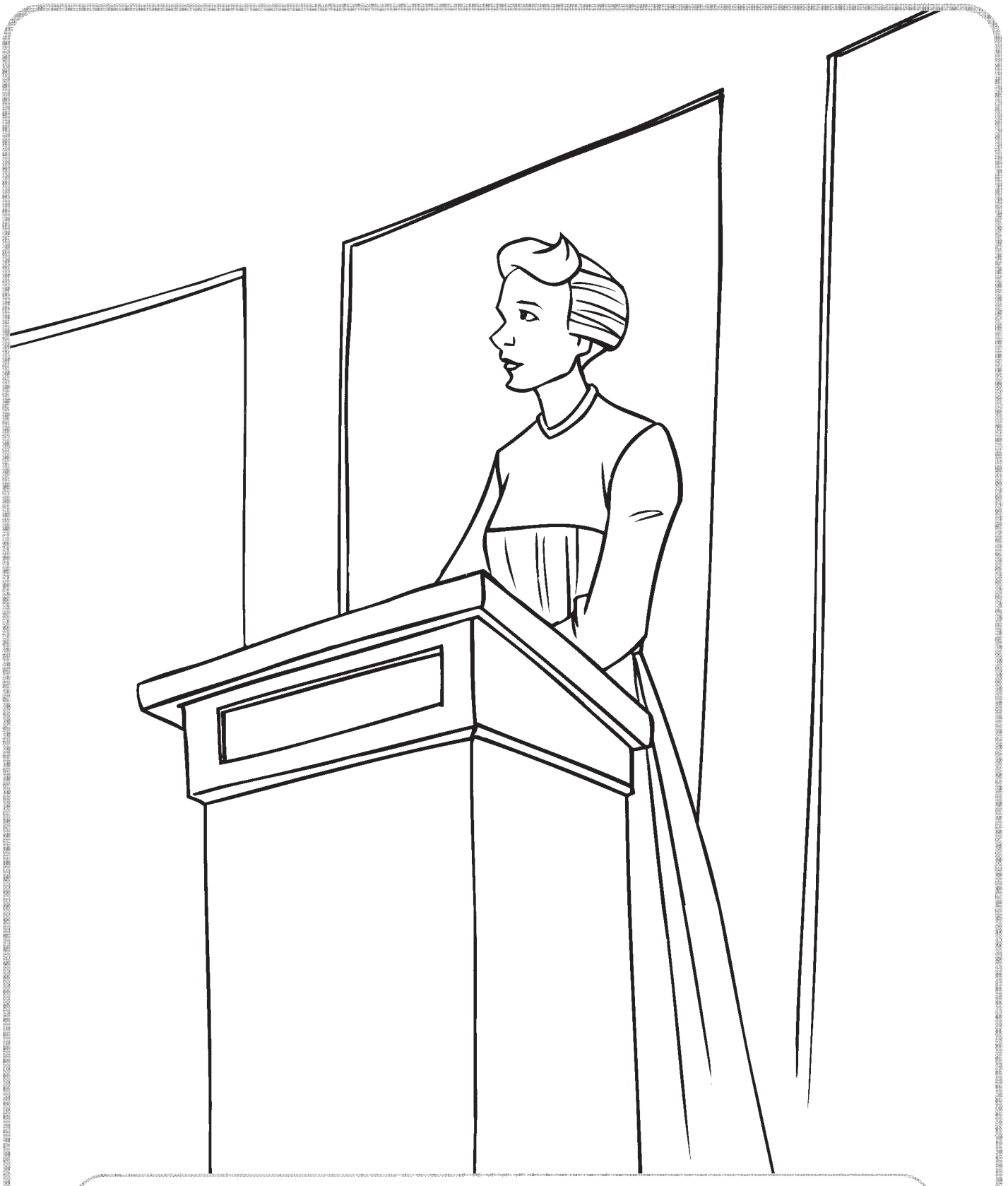

"The dream of a true scientist is to serve mankind."

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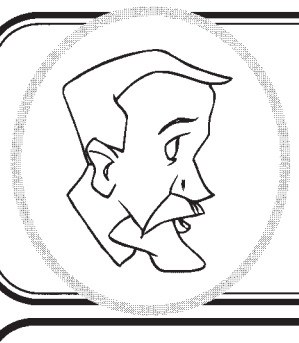

TRUE OR FALSE

Read each sentence. If it is true, write T on the blank preceding it. If it is not true, write F in the blank.

____ 1. Marie Curie was born in Poland.

____ 2. Marie's country was ruled by Russia.

____ 3. Marie's father was a Russian.

____ 4. All Russian universities were closed to women.

____ 5. Marie went to a secret university where everything was taught in Polish.

____ 6. Marie worked as a children's governess earning money to help her sister, Bronya, go to school.

____ 7. Bronya went to Paris to attend school.

____ 8. Bronya studied and became a doctor.

____ 9. After working for five years to help Bronya, Marie didn't want to go to Paris.

____ 10. Marie lived in poverty while she attended school in Paris.

____ 11. Marie graduated with the highest honors.

____ 12. Marie was anxious to work to get rich.

____ 13. Marie married Pierre because he was rich.

____ 14. Marie and Pierre worked hard to help suffering mankind.

____ 15. Marie was the first woman to teach in a university.

____ 16. Marie had a large, well-equipped laboratory to work in.

____ 17. Marie discovered radium.

____ 18. Marie was given two Nobel Prizes.

____ 19. Marie worked hard for years to prove her theory.

____ 20. Marie chose to give her discovery away, rather than sell it.

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MARIE CURIE QUESTIONS

1. Where was Marie Curie born?
2. What country ruled Poland at the time of Marie's birth?
3. Why could Marie not attend a university in Poland?
4. How did Marie help her sister Bronya to go to school?
5. Where did Bronya go to attend a university?
6. What did Bronya study to become?
7. How many years did Marie work to help Bronya?
8. When Marie finally got to go to Paris to the university, where did she live?
9. What did Marie study?
10. How did Marie rank in her classes?
11. What degrees did Marie earn from the university?
12. What had Marie planned to do after she graduated from school?
13. What did Marie choose to do instead and why?
14. Had any woman ever earned a doctorate degree before Marie?
15. After many years of hard work, what did Marie and Pierre discover?
16. Why was radium such an important discovery?
17. When offered money for their discovery, what did Marie and Pierre do?
18. Where did they do their experimental work?
19. What great honor was given to Marie twice?
20. What did Marie and Pierre teach about a true scientist?

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THINGS TO THINK ABOUT & DO

NOTE TO THE TEACHER: These are activities for a group to discuss and think about.

1. When Marie was in Poland, she went to a secret university that was taught in the Polish language. Russia ruled Poland at that time and outlawed teaching in Polish. It was also against the law to teach Polish history. Why do you think the Russians made these laws? Why do you think Marie and the other students broke the law to go to the secret university?

2. Marie and Pierre had a chance to make a lot of money from their discovery. They decided that what they discovered belonged to everyone and was not theirs to sell. What do you think would have happened if they had sold their idea to one person? Discuss what happened as a result of their sharing their discovery.

3. Marie Curie worked four long years to separate the pitchblende from the radium. It took several tons of pitchblende to get a speck of pure radium that weighed less than a potato chip! Discuss what it means to be scientist. Does it require certain qualities in a person? Do experiments sometimes fail? What should a scientist do when the experiment fails?

4. The Curies refused to believe that radioactivity could be dangerous. Discuss what we now know about these elements. How is radiation used today?

5. As a class project, make a study on radiation and how it provided the foundation for the Atomic Age. Include the benefits and drawbacks from atomic and nuclear power.

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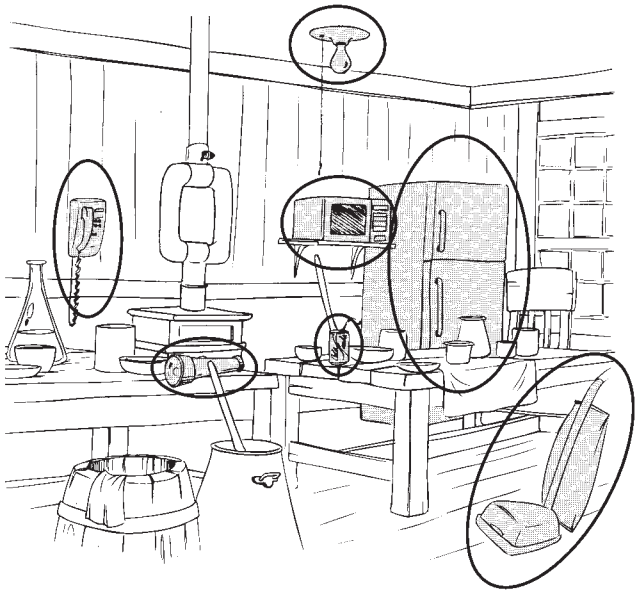
ANSWER KEY

WHAT IS WRONG? — PAGE 6

Phone, flashlight, microwave, electric ceiling light, refrigerator, soda pop can, vacuum cleaner.



COLOR THE LETTERS — PAGE 7

B C I C N A B C
N O B L C D C B
C S C H B E D C

IN AN OLD SHED

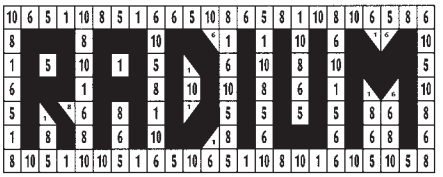
MARIE CURIE'S TIME LINE — PAGE 8

1859	Pierre Curie
1861	Civil War
1865	Alice in Wonderland
1867	Marya Sklodowska
1869	Suez Canal
1886	dynamite
1890	Cleopatra, Egypt
1891	Sherlock Holmes
1914-18	World War I
1928	Walt Disney, Micky Mouse
1934	Marie Curie

TAG-A-LONG SENTENCES — PAGE 10

1. When Marie was very young, her family knew she was a brilliant child.
2. Marie was always at the top of her class.
3. Marie finished school at the age of fifteen.
4. The universities in Poland did not accept girls.
5. Marie wanted to go to the university in Paris.
6. Marie's family could not afford to send her to school.
7. While Marie worked to save money, she went to a "secret university."
8. After many years, Marie finally went to Paris.
9. In two years Marie received her master's degree in physics.
10. The next year Marie took another degree in mathematics.

THE HIDDEN WORD — PAGE 11



PICTURE PUZZLE — PAGE 12

grapes drum
fish yoyo
A gram of radium
Yes

WORD SEARCH — PAGE 14

U	R	A	N	I	U	M	C	H	E	M	I	S	T
P	A	R	I	S	M	A	P	R	B	Q	N	K	O
A	D	B	L	U	N	R	C	D	L	E	R	P	G
D	I	L	I	C	P	I	E	R	R	E	S	H	L
A	O	D	E	L	A	E	R	L	S	B	O	L	P
E	A	R	Z	R	S	C	I	E	N	T	I	S	T
R	C	U	I	O	K	U	A	L	K	R	X	T	E
O	T	I	R	N	W	R	O	E	L	T	R	U	A
S	I	M	P	O	C	I	L	M	O	R	A	D	C
S	V	B	L	H	A	E	N	E	R	G	Y	Y	H
E	I	G	E	P	O	L	A	N	D	H	W	N	E
F	T	A	B	O	O	K	S	T	L	M	R	S	R
O	Y	R	O	T	A	R	O	B	A	L	M	W	A
R	B	P	N	O	T	E	S	N	R	A	O	L	K
P	E	X	P	E	R	I	M	E	N	T	N	M	O

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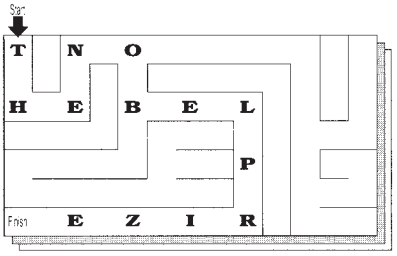
FUN WITH MATH AND WORDS — PAGE 15

7 12 16 8 17 15 5 6
2 3 9 19 20 11 13 4
I will do what is
best for mankind.

WORD WHEEL — PAGE 16

LITTLE CURIES

THE A-MAZE-ING MARIE — PAGE 18

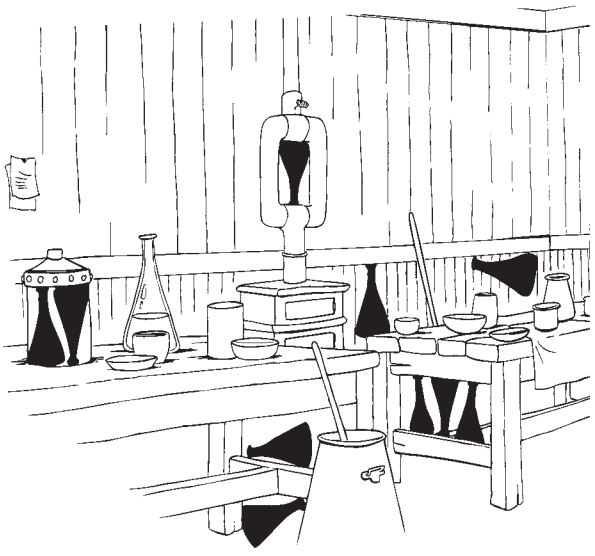


THE NOBEL PRIZE

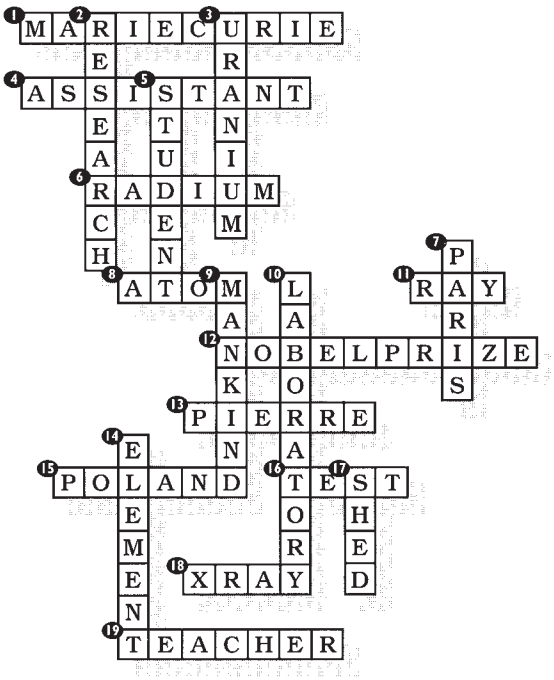
FIND THE SPELLING MISTAKES — PAGE 19

1. established
2. wealthy
3. dynamite
4. income
5. annual
6. each
7. chemistry
8. literature
9. receive
10. death
11. honored
12. world

HIDDEN PICTURES — PAGE 21



CURIE'S CROSSWORD — PAGE 25


1 M A R I E 3 C U R I E
E R
4 A S S 5 I S T A N T
E T N
A U I
6 R A D I U M
C E M
H N
8 A T O 9 M 10 L 7 P 11 R A Y
A A R
12 N O B E L P R I Z E
K O S
13 P I E R R E
14 E N A
15 P O L A N D 16 T 17 E S T
E O H
M R E
E 18 X R A Y D
N
19 T E A C H E R

LETTER BLACKOUT — PAGE 26

O V D T I E N O
Devotion

WORD WHIRLS — PAGE 27

1. BRONYA
2. LIPPMANN
3. BOUTY
4. JOSEPH

FEMALE FIRSTS — PAGE 29

1. *Doctorate of Science*
2. *Nobel Prize*
3. *Professor* at the *Sorbonne*

GRID CODE — PAGE 30

"Marie Curie is, of all celebrated human beings, *the only one whom fame has not corrupted.*"
- Albert Einstein

ELEMENTARY ELEMENTS — PAGE 31

1. oxygen *2. carbon* *3. hydrogen*
4. copper *5. gold* *6. silver*

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FLAG FUN — PAGE 33

Poland, Russia, Russia,
France, Sweden, England,
Sweden, United States, France,
Poland, Poland, Russia.

SECRET CODE — PAGE 34

She bought two bicycles.
They went on them on their honeymoon.

PUZZLING POETRY — PAGE 35

1. *radium*
2. *uranium*
3. *Pierre Curie*
4. *teacher*
5. *Bronya*
6. *mathematics*

FINISH THE STORY — PAGE 37

element - noun
discovered - verb
Marie Curie - noun
uranium - noun
everyone - noun
new - adjective
glowed - verb
dark - noun
instruments - noun
gram - noun
Radium - adjective
producing - verb
sicknesses - noun
bathe - verb
radioactive - adjective
tonics - noun
face - adjective
dangers - noun
radioactive - adjective
cancer - noun
radium - noun
cheaper - adjective
replaced - verb
industrial - adjective

WORD PUZZLE — PAGE 38

1. *Marya*
2. *Poland*
3. *Bronya*
4. *Paris*
5. *French*
6. *teach*
7. *Russia*
8. *radium*
9. *Pierre*
10. *Nobel*

MATCHING GAME — PAGE 39

1. Birthplace — F. Poland
2. Cancer — E. Radium
3. Experiment — G. Test
4. Laboratory — L. Workshop
5. Marie Curie — A. Scientist
6. Nobel Prize — B. A high award
7. Paris — M. Sorbonne University
8. Pierre — C. Husband
9. Pitchblende — K. Contains uranium
10. Professor — H. Teacher
11. Research — D. Investigate
12. Study — N. Books
13. Theory — I. Explanation
14. Uranium — J. Radioactive

TRUE OR FALSE — PAGE 41

1. T	6. T	11. T	16. F
2. T	7. T	12. F	17. T
3. F	8. T	13. F	18. T
4. T	9. F	14. T	19. T
5. T	10. T	15. T	20. T

QUESTIONS — PAGE 42

1. *She was born in Poland.*
2. *Russia ruled Poland.*
3. *No woman could enter.*
4. *She worked as a governess.*
5. *Bronya went to Paris.*
6. *Bronya studied medicine to become a doctor.*
7. *Marie worked five years.*
8. *Marie lived in a cold, dark attic apartment.*
9. *She studied physics and mathematics.*
10. *She was a top student.*
11. *She earned a master's degree in both physics and mathematics and a doctorate in science.*
12. *She wanted to go back to Poland and teach what she had learned.*
13. *Marie married Pierre Curie and continued her experiments in Paris.*
14. *No, she was the first.*
15. *Marie and Pierre discovered radium.*
16. *It kills cancer cells.*
17. *They gave their discovery away.*
18. *They worked in an old shed.*
19. *She received the Nobel Prize.*
20. *A true scientist's dream is to serve mankind.*

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has mastered the

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